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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,297	04/14/2004	Robert L. Franch	YOR920030605US1	6059

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EXAMINER	
VERBITSKY, GAIL KAPLAN	
ART UNIT	**PAPER NUMBER**
2859	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/824,297	FRANCH ET AL.	
	Examiner	Art Unit	
	Gail Verbitsky	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,9-11,32-47 and 49-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *47 and 49-51* is/are allowed.

6)☒ Claim(s) *1,3-7,9-11* is/are rejected.

7)☒ Claim(s) *32-36 and 43-46* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-5 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Javanifard et al. (U.S. 6567763) [hereinafter Javanifard] in view of Beer et al. (U.S. 6612738) [hereinafter Beer].

Javanifard discloses in Fig. 2 an IC temperature sensing device comprising a plurality devices connected together and forming circuit, a switchable current source 120 comprising constant current generators providing a known current to a pn-junction (diode) 110, a voltage measurement device 155 providing temperature related voltage corresponding to pn-junction.

For claim 3: the device converts analog signal to a digital (Fig. 6, step 650) by using an ADC 150.

For claim 5: the device determines difference between first and second (reference) voltages (Fig. 6, step 640). This would imply that the device has a comparator.

Javanifard does not explicitly state that the switch/ clamp selectively shunt the constant current, as stated in claim 1, with the remaining limitations of claims 1, 3-5.

Beer discloses a device in the field of applicant's endeavor wherein a switch 17 is a shunting clamp, which connects lines 11 and 13 or connects lines 11 and 20, i.e., shunting the constant current 31 off the line 11-13. The switch 17 is N-FET.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Javanifard, so as to replace the clamp with a shunting clamp, as taught by Beer, so as to shunt the constant current out during one mode and in the line of interest during the measurement mode, so as to allow to operate either one or another part of the circuit, as taught by Beer and very well known in the art.

3. Claims 6-7, 10-11 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Javanifard and Beer, as applied to claims 1, 3-5 above, and further in view of Shoji (U.S. 6496056).

Javanifard and Beer disclose the device as stated above.

They do not explicitly teach that the semiconductor is a FET, pn-junction is a FET, and the circuit is a CMOS.

Shoji discloses in Fig. 2-5 and col. 3 a device including all deficient limitations of claims 6.

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify the device disclosed by Javanifard and Beer, so as to have a CMOS circuits with N-FETs and P-FETS, because all of these transistors are alternate types of pn-junctions which will perform the same function of measuring a parameter (temperature) of an IC/ CMOS, if one is replaced with the other.

4. Claims 6-7, 10-11, 38-42 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Javanifard and Beer, as applied to claims 1, 3-5 above, and further in view of Ohshima (U.S. 6441679)

Javanifard and Beer disclose the device as stated above.

They do not explicitly teach that the semiconductor device is a FET, pn-junction is a FET, and the circuit is a SOI.

Ohima discloses in Figs. 2-5 a device comprising a temperature sensor, a PN being SOI sensing.

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify the device disclosed by Javanifard and Beer, so as to have a CMOS SOI circuits with N-FETs and P-FETS, because all of these transistors are alternate types of pn-junctions which will perform the same function of measuring a parameter (temperature) of an IC/ CMOS/ SOI, if one is replaced with the other.

5. Claim 37 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Javanifard and Beer as applied to claims 1, 3-5 above, and further in view of Benes (U.S. 20030025514).

Javanifard, Beer and Shoji disclose the device as stated above.

They do not explicitly teach the limitations of claim 37.

Benes discloses a device wherein a clamping shunt can be parallel or in series.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make a shunt/ switch parallel/ in series to a source, as

taught by Benes, in order to limit the current to a predetermined level as desired, as very well known in the art.

Allowable Subject Matter

6. Claims 32-36, 43-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 47, 49-51 are allowed.

Response to Arguments

7. Applicant's arguments filed on October 11, 2006 have been fully considered but they are not persuasive.

Applicant states that the references do not teach a shunting clamp. This argument is not persuasive because, A) since applicant does not clearly describe the shunting clamp neither in the specification nor in the claims, any switch, in a broad sense can be considered a shunt because in one position it shorts the circuit and in another position it opens the circuit. Also, please refer to Webster Dictionary, 10th edition, page 210 for definition of clamp.

B) the combination of Javanifard and Beer teach a shunting clamp as claimed by applicant.

Applicant states that Beer does not teach an IC. This argument is not persuasive because, in the rejection on the merits, the Examiner uses Beer as secondary references only for its teaching of a shunting clamp. The combination of Javanifard and Beer teaches all the limitation of claim 1 including the IC. Also, with respect to the "integrated circuit": the preamble of the claims does not provide enough patentable

weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and a portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. Kropa v. Robie, 88 USPQ 478 (CCPA 1951).

Applicant states that the motivation for combination of Javanifard and Beer is not suggested by the references. This argument is not persuasive because, the Examiner recognizes that there should be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articuated. the test for combining references is what the combination of disclosures taken as a whole would suggest to one od ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971. The references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Mizuta (U.S. 20030086476) discloses in Fig. 2 a device in the field of applicant's endeavor comprising a comparator 50 for comparing measured temperature related voltage of an pn-junction with a reference/ preset voltage 60. Mizuta teaches a current supplying circuit 20 comprising plurality of FET transistors 23 and a switch (clamp) 24 selectively providing/ shunting the current to a pn-junction 32.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

G. Verbitsky

GKV

Gail Verbitsky
Primary Patent Examiner, TC 2800

December 21, 2006